

CLAIMS

I claim:

Amend
1. A marine propulsion system having a power source, a rotary drive shaft, a casing surrounding said rotary drive shaft, and a propeller, wherein the improvement comprises:

ball bearings and bearing races which are adapted to separate said drive shaft from said casing;

5 a housing about said ball bearings and bearing races removably attached to said casing at a first end and having a first opening adjacent said casing and a second opening;

a removable cover adapted for enclosing said housing second opening and providing access to said ball bearings and bearing races;

10 whereby said housing and removable cover isolate said bearings from an environment exterior of said housing.

2. The marine propulsion system of claim 1, wherein said rotary drive shaft passes through said casing, said bearings, said housing, and said removable cover.

3. The marine propulsion system of claim 2, wherein said housing further comprises threads for attaching to said casing.

4. The marine propulsion system of claim 3, wherein said removable cover further comprises threads for attaching to said housing.

5. The marine propulsion system of claim 4, wherein said casing, said bearings, said housing, and said removable cover are concentric about said rotary drive shaft.
6. The marine propulsion system of claim 1, wherein said second opening is larger than said ball bearings and bearing races, whereby said ball bearings and bearing races may be removed through said housing.
7. The marine propulsion system of claim 1, wherein said first opening provides access to a side of said ball bearings and bearing races, whereby said ball bearings and bearing races may be pushed from said first opening towards said second opening.
8. The marine propulsion system of claim 7 wherein said housing has an inside diameter adjacent said casing which is greater than an ~~inside~~ diameter of said ball bearings and bearing races.
9. The marine propulsion system of claim 1, further comprising at least one shaft seal adjacent said cover, whereby moisture will be inhibited from passing between said shaft and said cover into said housing by said shaft seal.
10. The marine propulsion system of claim 3, wherein said housing comprises a threaded male connector extending between said casing and said shaft for removably attaching said housing to said casing.

11. A marine propulsion linkage for connecting a propeller to a motive power source, comprising:
 - a shaft adapted for rotation about a first axis having a first end and elongated along said first axis from said first end to a second end, said first and second ends terminating said shaft;
 - a means for coupling said shaft to said propeller adjacent said second end;
 - a means for coupling said shaft to said motive power source adjacent said first end;
 - a casing generally concentric with said shaft and elongated along said first axis having a first end adjacent said shaft first end and a second end adjacent said shaft second end;
 - a framework attached to said casing and maintaining said casing between said propeller and said motive power source;
 - a bearing housing removably attached to said casing.
12. The marine propulsion linkage of claim 11, wherein said shaft has a maximum radius from said first axis and said casing has a minimum inside diameter greater than said maximum radius.
13. The marine propulsion linkage of claim 11, wherein said casing fully circumscribes said shaft.
14. The marine propulsion linkage of claim 11, wherein said casing has an exterior profile in the general direction of travel through the water and said housing has a profile similar to said casing profile, so as to prevent the generation of shallow water spray.
15. The marine propulsion linkage of claim 11, wherein said bearing housing has a body which surrounds and locates at least one bearing outer race at said casing second end.

16. The marine propulsion linkage of claim 11, wherein said bearing housing further comprises a nose portion with an outside surface adapted for sealing engagement with said casing

17. The marine propulsion linkage of claim 11, wherein said bearing housing nose portion threads onto said casing.

18. The marine propulsion linkage of claim 11, wherein said bearing housing further comprises an inside surface concentric to said shaft within which said shaft passes.

19. The marine propulsion linkage of claim 15, further comprising a second bearing housing removably attached to said casing adjacent said casing first end and containing at least one bearing outer race and bearing therein through which said shaft passes and further comprising a fluid seal to obstruct the passage of moisture through said second bearing housing into a cavity between said casing and said shaft.

20. A marine propulsion system having a power source, a rotary drive shaft, a casing surrounding said rotary drive shaft, and a propeller, wherein the improvement comprises:

ball bearings and bearing races which are adapted to separate said drive shaft from said casing;

a housing about said ball bearings and bearing races, attached to said casing at a first end and having a first opening adjacent said casing and a second opening;

a removable cover adapted for enclosing said housing second opening and providing access to said ball bearings and bearing races;

at least one shaft seal adjacent said removable cover, operatively inhibiting moisture from passing between said shaft and said cover into said housing;

whereby said housing, said removable cover and said shaft seal isolate said bearings from an environment exterior of said housing.